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TB CARE I

TB CARE I - Mozambique

Year 1

Annual Report

October 1, 2010 – March 31, 2012

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List of Abbreviations

ACSM	Advocacy, Communication and Social mobilization
CHASS SMT	clinical HIV support services for Sofala, Manica and Tete
CMAM	*central de medicamentos e artigos médicos*(central medical stores)
CDC	Centre for Disease Control
IP	Implementing partner
IPT	isoniazid preventative treatment
KNCV	Royal Netherland Tuberculosis Association
NMCP	National malaria control program
MSH	Management Science for Health
NTP	National tuberculosis control program
MoH	Ministry of Health
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

TB CARE I project is a five year global USAID funded project implemented by TBCTA partnership with KNCV Tuberculosis Foundation (KNCV) as the prime. The current project builds and expands upon previous USAID tuberculosis (TB) prevention and treatment efforts, particularly the success of the Tuberculosis Control Assistance Program (TB CAP), which was successfully implemented from 2006 to 2010 and Mozambique was one of the beneficiaries.

In Mozambique, FHI 360 is the lead partner responsible for providing technical guidance and coordination, with KNCV, Management Science for Health (MSH) and World Health Organization (WHO) as coalition partners. Mozambique is the only TB CARE I country program implementing also malaria interventions, since April 2010. The malaria activities are funded through the President's Malaria Initiative and the project provides national-level assistance to the National Malaria Control Program (NMCP).

In addition to the role of coordinating partner, FHI 360's main mandate is to provide technical assistance to the national TB and Malaria programs focusing on the following technical areas: universal access with emphasis on CB DOTS, laboratories, TB/HIV, health system strengthening, monitoring and evaluation, surveillance and operational research. MSH leads efforts to improve the laboratory network to increase its capacity to test more TB suspects and strengthen TB drug management. WHO provides technical assistance for health system strengthening and KNCV provides technical support to the project in programmatic management of drug resistant TB and advocacy, communication and social mobilization. The total Year 1 budget of the project is 5.4 million USD, of which 4.2 million are for TB and 1.2 million for malaria.

The TB CARE I project applies a combination of strategies which include partnerships with other implementing organizations and an integrated approach to respond to the TB and malaria epidemic. The TB component of the project is implemented in 6 out of 11 provinces while the malaria component is countrywide.

The TB CARE I project is managed by a technical team based in Maputo supported by two provincial technical officers based in Zambézia and Nampula, where TB CARE has a significant number of activities. Through partnerships entered into with local implementing agencies to fund implementation of the CB DOTS program, TB CARE I has increased its coverage from 25 districts under TB CAP to 36 districts within the first year of TB CARE I. The total population in the districts covered by the project corresponds to 54.9% (8.297.541 habitants) of the population within the six target provinces and 38.6% of the total population in Mozambique (21.5 million habitants).

During this period, main activities conducted were expanding CB DOTS through the engagement of 9 implementing agencies. As a result, a total of 2.370 community volunteers, 69 health technicians, 182 traditional healers and 85 field officers were trained in CB DOTS management. In addition, 18 project people were trained and 83 nurses were trained on slide fixation..

Main achievements during this reporting year include the renovation of the Mocuba MDR TB ward in Zambezia, expansion of CB DOTS into 24 new districts, printing and distribution of 16,000 copies of malaria tools (such as malaria treatment guidelines, malaria diagnosis manual and malaria bench aids) and including the development of key malaria policy documents (malaria policy, strategic plan and M&E plan) and the training of technicians in laboratory cascade.

Due to the late start of year one activities, the fiscal year was extended until March 31, 2012. Thus, this report covers the period of October 2010 to March 2012, 2012.

Introduction

TB CARE I project is a five year USAID funded project implemented by the TB CTA partnership. The total year one budget of the project is 5.4 million USD, from which 4.2 million are for TB and 1.2 million for malaria. In Mozambique, FHI 360 is the lead agency responsible for providing technical guidance and coordination, with KNCV, MSH and WHO as coalition partners. Management Science for Health (MSH) will lead efforts to improve the laboratory network to increase its capacity to test more TB suspects and strengthen TB drug management; World Health Organization (WHO) will provide technical assistance for health system strengthening and KNCV will provide technical support to the project in programmatic management of drug resistant TB and advocacy, communication and social mobilization. CDC also provides key technical assistance to the malaria component of the activities.

The TB CARE I project applies a combination of strategies which include partnerships with other implementing organizations and an integrated approach (coordination and complementarity) to respond to the TB and malaria epidemic. Mozambique is the only TB CARE I country program implementing both malaria and TB interventions. The malaria activities are funded through the President's Malaria Initiative and the project provides national-level assistance to the NMCP. For the TB component, the project provides technical assistance to the Mozambique NTP, contributing to the national, global and Millennium Development Goals targets for TB.

During the first year, activities under TB included the following technical areas: universal access, laboratories, PMDT, TB/HIV, health system strengthening, monitoring and evaluation, surveillance and operational research. The activities in Year 1 were implemented in 36 districts of six provinces, namely Gaza, Sofala, Manica, Zambezia, Nampula and Niassa.

The malaria activities are funded through the President's Malaria Initiative and provide national-level coverage. The main three components include: technical assistance to the NMCP with a focus on monitoring and evaluation, training of laboratory technicians in all the 11 provinces and implementation of an antimalarial drug efficacy study.

Despite the late start of the program the team rapidly mobilized and prioritized key areas to be addressed within the reduced year one time period. The main focus was to execute local sub agreements, initiate PMDT, ACSM and strengthening of laboratory activities.

The APA1 project implementation period was extended to March 2012 and this report covers the period of October 2010 to March 2012.

Section A: Tuberculosis

1. Universal Access

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
1.1	Expand CB-DOTS coverage from 25 to 36 districts in 6 provinces	Number of districts implementing CB DOTS	Number of districts implementing CB DOTS in at least part of the district	25	36	36	All agreements with CB DOTS partners have been finalized and activities have started in all 36 target districts.
1.2	In the context of SS+ contact investigation increase the number of children under 5 years old diagnosed with active or latent TB	Number of new TB cases referred by the volunteers	Number of new TB cases (all TB forms) among patients referred by the CB DOTS volunteers for TB screening at health facilities	1500	2000	864	Activities in year one were most related to training community activities who are responsible in suspect referral. Positive results will reflect in year two onwards.

Key Achievements

The Community Based DOTS (CB DOTS) program has been a priority for the Mozambican NTP program since TB was declared a public health problem. Prior to TB CAP, TB interventions were confined to institutional DOTS and coverage of CB DOTS was minimal. Major expansion was successfully achieved during the TB CAP implementation period (2006 to 2010) with 24 districts covered. By March 2012, building upon success attained during TB CAP, the project successfully scaled up its coverage to meet the targeted number of districts covered by CB DOTS. Thirty-six districts were funded to implement CB DOTS activities, covering 54.9% of population in the six target provinces. Training of community volunteers including traditional healers and health technicians in CB DOTS was done between November 2011, and February 2012 with a total of 2,370 community volunteers (841 females and 1529 males), 69 health practitioners (33 females and 36 males), 85 field officers and 182 traditional practitioners (89 females and 93 males) were trained in CB DOTS management. In addition, 85 field officers from nine implementing agencies were also trained in CB DOTS management with another 83 health staff (36 females and 47 males) trained on slide fixation.

As a measure to increase capacity of traditional healers and involve them in case detection and community awareness activities in both Malaria and TB, the project supported a training of trainers for traditional healers at central level in CB DOTS/malaria detection. This was one of the first training conducted under the TB CARE I integrated approach for the TB and Malaria components. The training was led by the National Institute for Traditional Medicines (NITM) and staff from NTP and was held between January 23 - 28, 2012; a total of 31 participants (11 females and 20 males) representing all

11 provinces participated in the training. The training focused on capacity building of a selected group of traditional healers of all provinces and NITM focal points in CB DOTS as well as Malaria and HIV/AIDS at so that they will act as provincial trainers in their respective provinces. After the training, a step down training will be organized by CB DOTS implementing partners in TB CARE I provinces to train traditional healers in TB suspect and malaria case detection as well as suspect referral. Through the integrated TB and Malaria approach in implementing community activities, the trained community volunteers referred 8751 TB and malaria suspects to health facilities for diagnosis services. Out of the total TB and Malaria case suspects, 299 were clinically diagnosed as having malaria. This achievement reflects positive efforts being done at community level in responding to the integrated approach.

As part of the core project to implement innovative approaches in TB control, including diagnosis and or treatment, the TB CARE I project supported participation of six selected NTP, FHI360 and implementing agencies staff at the regional Patient Centered Approach (PCA) workshop held in Nigeria. The objectives of the workshop was to enhance knowledge on patient centered package, train country core teams in implementation, monitoring and evaluation of PCA packages and enable country core teams to develop country work plans and carry out interventions in selected areas. A country work plan and successfully approved by the NTP to implement three tools (Quote TB light, Patient Charter and TB literacy toolkit) in two selected districts of Chibuto (rural) and Nampula Cidade (urban).

Before conducting the base line study for the implementation of the tools, the country core team piloted the qualitative and quantitative research methods in 2 health facilities around Maputo province in order to adapt the materials produced by the KNCV team. The adaptation phase resulted in materials edited to fit the Mozambican context. After the adaptation phase a base line survey was carried out in the selected 2 districts (rural Chibuto and urban Nampula) to assess knowledge and practices related regarding to the PCA tools. A total of 226 patients were interviewed, 6 focus groups discussions with TB patients conducted, and 43 in-depth interviews with TB patients, key informants and NTP staff were done in 6 health facilities of the 2 targets districts. A baseline report has been completed and will be shared with the lead team while preparation for materials (printing and dissemination) is in process as to implement the PCA activities.

Challenges and Next Steps

The major challenge in implementing these activities was the delay in the start of Year 1, which was a result of delays in submission and approval of the APA 1 work plan and budget. Final approvals were received on June 27, 2011 and work commenced at that time. As a result, the agreements with the CB DOTS partners were delayed, resulting in delays in the startup of the community-based activities. For this reason the target related to the number of patients referred by the volunteers were not achieved. However, activities are moving forward at the community level and we expect to achieve the targets set for year two.

As the program scales up to reach the 45 districts targeted for Year 2 expanding to one more province (Tete), the project will strengthen integrated supervision visits to sites as a way to closely monitor implementation and quality of services delivered.

2. Laboratories

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
2.1	TB laboratory diagnosis quality improved and expanded	Coverage rate of districts complying with national QA norms	Number of Laboratories complying with QA norms for TB microscopy / Total number of Laboratories in all districts covered by TB CARE	0	50%	50%	Supervision visits were carried out in all target provinces to ensure that national QA norms are adequately followed.
2.2	Capacity for TB Culture and DST expanded to all 3 regional labs	Number of regional labs complying with national and international QA standards	Number of regional labs complying with national and international QA standards for culture and DST	2	2	2	The project continued to provide technical assistance to ensure full functioning of the 2 reference laboratories.
2.3	Technical assistance on lab provided	Proportion of eligible patients who benefit from the GeneXpert technology	Number of retreatment cases + new ss+ without sputum conversion after 2 months of treatment whose samples were processed through the GeneXpert technology/ total number of eligible TB patients	0	5%	0	The procurement of the GeneXpert machines has not yet been finalized. We expect that the machines will arrive in country during APA 2

Key Achievements

A lot of effort was invested during the implementation of TB CAP with decentralization of TB culture to the centre region of the country and upgrading the TB and Malaria reference labs achieved. The project also provided technical assistance in the functioning of these laboratories, including but not limited to procurement of equipment, basic reagents and consumables, training and supervision. These activities provide the basis for expansion of access to high quality of TB diagnostics across the country

During APA 1 the project worked in collaboration with the NTP and the TB Reference laboratory to improve quality assurance of smear microscopy, especially at the peripheral laboratories. This was achieved through regular on-site supervision of laboratory staff by the MoH with technical and logistic support from TB CARE I.

Five supervision visits were conducted in five target provinces (Gaza, Sofala, Zambezia, Manica and Nampula) and a total of 27 districts were visited. The supervision visits were conducted as part of the technical support provided to the NTP program. Plans to conduct integrated laboratory visit to address both the TB and Malaria components within the laboratory section are underway with on job training to supervisors planned during APA2 implementation. Supervision reports produced are crucial in improving functioning of peripheral laboratory as plans are elaborated based on findings from previous supervision visit.

The project also completed the procurement process for the purchase and supply of laboratory equipment including two GeneXpert machines, one five-headed microscope, one negative pressure equipment and 20 LED microscopes. The equipment will strengthen TB and malaria laboratory diagnosis. Procurement will be concluded under APA1 but delivery and site installation will be done in APA2. In addition, minor laboratory equipment and liquid culture reagents have been procured.

The project also provided support to the National TB Reference Laboratory in specimen referral to one Reference laboratory in South Africa for suspected XDR TB cases. From results received no case of XDR TB was confirmed.

Challenges and Next Steps

The renovation work at the Regional Reference Laboratory in Nampula suffered delay due to the bureaucratic process involved in selecting contractors and changes on the renovation plan as initially presented by the MoH. The proposed changes have been incorporated and bid invitation and selection of contractor process concluded. Construction work will commence as soon as the contract signing process currently in progress has been finalized.

The procurement of GeneXpert machines has also proved to be a long process but is now about to be completed, with machines available for installation by July 2012. Infrastructure improvement at sites that will benefit from these machines (Cuamba Rural Hospital (in Niassa province), Quelimane Provincial Hospital (in Zambézia province) and Carmelitas TB Hospital (in Gaza Province) have commenced.

Common challenges identified during laboratory supervision visits included lack of a maintenance plan for laboratory equipment, lack of training in good laboratory practices, inadequate management of laboratory equipment, a need for a separate room dedicated to TB smear microscopy, poor registries, lack of quality control measures, absence of a sample referral systems from the district to the provinces, and poor coordination between NTP and the laboratory section. A working group is compiling all findings from the supervision visits in order to suggest specific actions to address them.

This document will be discussed during a national laboratory meeting scheduled to take place during the third quarter of the second fiscal year (April-June, 2012). The document will also be used to improve supervision guidelines.

4. Programmatic Management of Drug Resistant TB (PMDT)

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
4.1	Comprehensive national strategy for PMDT designed and rolled out.	PMDT national strategic plan developed and applied	Activities implemented / activities planned of PMDT strategy	0	20%	20%	A draft strategic plan has been prepared and some of the activities included in the draft plan are already in place.

Key Achievements

A draft PMDT strategy was elaborated with KNCV support and participation of key MoH personnel, from central and provincial levels. Elaboration of the draft strategy incorporated inputs from major TB stakeholders and experience learnt from the Namibian visit conducted by selected NTP and TB CARE I staff. The document will be incorporated in the new overall NTP strategy which will cover the period of 2013-2017. The strategic plan will be ready by the end of July 2012.

Challenges and Next Steps

Although this activity was delayed due to late startup of the project, we have been able to achieve our target of 20% progress toward developing a PMDT national strategic plan. It is important to note that although the strategy is still under development, most provinces have taken the decision – which the strategy plan will recommend – to decentralize the treatment of MDR TB patients to district level. The TB CARE I project had planned to support this process through the rehabilitation of MDR TB wards at the Machava Hospital; however the renovation activities will be halted due to lack of funds. The activities will remain in the pipeline in case funds are available.

5. TB/HIV

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
5.1	Increase awareness of TB/HIV through the dissemination of communication materials at the community and health facility level in the six provinces	Number of leaflets/pamphlets distributed at the community and health facility	Number of TB and TB/HIV patients receiving pamphlets	0	100,000	76,350	Materials produced have been distributed to all 11 provinces of the country
5.2	Improve TB-HIV case management in 3 provinces	Increase TB-HIV case management skills of health workers	Number of health workers trained on 3Is and MDR-TB in 3 provinces (Gaza, Nampula and Zambezia)	0	90	91	Four provinces (Manica, Gaza, Zambezia and Niassa) were covered with the TB/HIV training. A total of 91 MoH staff (19 females and 72 males) were trained.

Key Achievements

The project has directly supported four trainings, in Manica, Gaza, Zambézia, and Niassa provinces of Mozambique. Because FHI 360 Mozambique also has separate PEPFAR funding for delivering HIV/AIDS services across most of the country, we intend to focus on even closer integration of TB-HIV activities. The Manica training was conducted in close coordination with CHASS SMT (a PEPFAR project). These trainings were comprehensive and included all the subjects of TB Program, such as: TB, TB/HIV, MDR/TB, Infection Control, Pediatric TB, CB DOTS and DOTS plus. Post training supervision is planned for Year 2.

The TB CARE I project supported the NTP in the printing, reproduction and distribution of TB/HIV IEC materials to all 11 provinces.

Through its participation in the national TB/HIV task force, the TB CARE I team provided technical assistance for the development of a new set of guidelines to support the implementation of TB/HIV collaborative activities. The implementation of these guidelines will start in early 2012.

Increasing the number of TB/HIV co infected patients in ARVs treatment is a priority of MoH and TB CARE I will advocate with HIV partners for this to happen, particularly in target provinces. To do so the TB CARE provincial officers have been attending ART committees, at least in two most populated provinces.

Challenges and Next Steps

The major challenge in achieving the technical outcomes related to TB/HIV activities was the lack of adequate funding to reproduce and distribute TB/HIV materials. Printing costs have increased thereby limiting number of materials to be produced. The sudden increase in printing costs has been taken into consideration in APA2.

6. Health System Strengthening (HSS)

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
6.1	6.1 Capacity of health system to implement TB care and control activities strengthened	Number of TB CARE provinces that have TB care and control activities sufficiently included in their annual plans	Number TB CARE provinces that have planned for TB care and control activities and made budget allocations in their annual plans	0	3	unknown	This indicator will be available from next year.
		Implementation rate of TB activities at all levels	Number of implemented TB activities / Number of planned TB activities in districts and provinces covered by TB CARE	0	25%	unknown	This indicator will be available from next year.

Key Achievements

Health system strengthening

The project supported the NTP to develop the National Tuberculosis Control program Strategy (2013 – 2017). The process involved a consultative workshop led by the HSS KNCV consultant and counted with the participation of 50 people from the NTP (central and provincial), MOH staff from various departments, TB CARE I staff, civil society organizations as well as CB DOTS implementing agencies. A draft strategy has been produced and is being circulated for final inputs before its finalization. The strategy includes an M & E component not initially included in the previous strategy. The strategy will improve the NTP functioning as it will orient and guide planning, budgeting and monitoring of TB activities in the country. Also, the plan will include for the first time an M & E component which will also support monitoring, by defining indicators and setting targets and benchmarks necessary for program success.

The renovation of the MDR TB Ward at Mocuba clinic (Zambezia) was completed. The ward has a capacity to accommodate 8 patients and will be the main inpatient MDR TB wards for Zambezia province. The renovation process was managed by a partner organization, AMODEFA Zambezia (Zambezia CB DOTS), who demonstrated their capacity to follow procedures and requirements in selecting and managing contractors responsible for the renovation.

Challenges and Next Steps

After the departure of the WHO Country Representative in 2011, it was agreed that WHO would recruit three national program officers, who would provide technical support to NTP on matters related to the Global Fund and M&E. However, due to changes in the senior management of WHO Mozambique these

activities were delayed. The recruitment process has started and will be finalized in the coming months. For this reason no additional funds have been included for WHO in APA2.

7. Monitoring & Evaluation, Surveillance and OR

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
7.1	M&E capacity strengthened at central and provincial level	Increased number of M&E provincial meetings	Number of provincial M&E meetings held to review and analyze district level data for decision making	0	3	unknown	Given the number of provincial level meetings, clear terms of reference need to be developed to reduce the possibility of duplication of effort and to maximize available resources. Once the terms of reference are finalized, M&E provincial meetings will be initiated.
7.2		Number of quality TB provincial reports submitted to NTP (Quality is defined as completeness, timeliness and analysis of information)	Number of quarterly M&E reports that meet quality criteria/Total number of reports examined in all provinces supported by TB CARE	0	25%	55% (11/20)	One of the activities carried out during the supervision visits was the revision of reports from districts and provinces

Key Achievements

A workshop to discuss the NTP M&E plan and data management was organized. The workshop was conducted by the TB CARE I M&E officer and the NTP M&E focal point and it was attended by the M&E officers of the 10 selected NGOs. Other activities are still ongoing, including a needs assessment of the M&E needs at central and provincial levels. The results of this assessment were used to design a training course for TB provincial supervisors and to support the design of the monitoring and evaluation plan for the NTP.

During this year the project printed 280.000 monitoring forms used by NTP at provincial and district level for data collection and reporting. The forms have been distributed to all 11 provinces in Mozambique to improve data collection and reporting.

The project developed a District Information Health System (DIHS) data base and training manuals in M&E. Two local consultants are leading the process with support from NTP and TB CARE I. Development of the manuals and DIHS database has been completed and these will be used in training provincial supervisors and their deputies in M & E. This activity will increase the capacity of monitoring of activities at provincial and district level as well as information management and data analysis (disaggregate TB patients by gender and age). The training will be done in APA2.

Consultative meetings have been conducted for the realization of the KAP study as planned under year one activities. The study will be led by Nweti, a leading communication and research institute in Mozambique with direct support from TB CARE I staff. The study protocol has been drafted and is to be finalized soon. Follow up meetings have been set involving KNCV technical support staff as to ascertain that the protocol as well as pre study documents are successfully completed.

Literature review for the National Research Agenda has been completed and summaries will be sent for review from HQ. An annotated bibliography is to be completed by July 2012 with support from FHI360 HQ before the writing of review paper begins.

Challenges and Next Steps

One of the major difficulties in providing support to NTP in improving their M&E systems was the lack of an M&E plan. To address this issue, the TB CARE I team supported the NTP in organizing meetings with all TB stakeholders in order to agree on objectives and targets for the calendar years of 2011 and 2012

After extensive discussions with NTP and other TB stakeholders it was decided that implementing the TB electronic register will not be practical at this stage. As a consequence this activity was cancelled and the project will await further guidance from MoH.

Literature review for the National Research agenda has been slower than anticipated. Challenges have been with language as translation was required to English for one of the summaries produced by one of the reviewers.

8. Drug supply and management

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
6.3	Technical assistance on drug management provided	No stock out of anti-TB drugs or lab reagents at the national, regional or provincial level	Percentage of national, regional and provincial storage facilities reporting no stock out of TB first line drugs or lab reagents during the quarter	0	2	N/A	There is no systematic mechanism for collecting and analyzing TB commodity data from regional & provincial storage facilities. MSH team will strengthen the system to manage TB data collection , analysis and use in APA2

Key Achievements

The TB Drug supply and management unit in Mozambique made some accomplishments that will form the foundation of future improvements. First, MSH through TB CARE I in Mozambique recruited an experienced Mozambican drug management expert to support the NTP. Technical visits were conducted by two MSH International consultants who provided short term technical assistance to the NTP. The support visits were mainly focused on improving drug management (storage and distribution) and forecasting planning. Trip findings and recommendations were provided and the NTP with support from the TB CARE I Drug Management Officer have addressed most of these with work ongoing on the remaining recommendations.

In coordination with MoH staff, the project consultant conducted supervision visits on drug management in three provinces: Tete, Manica and Zambézia. Some of the problems observed during these visits included the frequent shortage of some TB drugs (2FDCs for children, 4FDC for adults, pyrazinamide and cycloserine), the use of an outdated form to request TB drugs and the absence of a standard form to request second-line TB drugs. The visits also revealed that there is lack or inadequate communication between NTP and the Pharmacy department.

Through activities led by the MSH technical person at the NTP, distribution of TB drugs was completed with all 11 provinces receiving TB drugs on time. A distribution plan based on the PNCT11 forms received from the provinces and stock available at the drug warehouses (CMAM) was developed.

Also as a way to facilitate stock management, an excel database was designed to gather information from PNCT11 based on number of patients, available stock at the end of quarter, quantities requested, NTP distribution plan, quantities distributed and received at provincial level.

Data analysis related to the availability of the 3 main TB drugs (4FDC, 3FDC adult and pediatric) was conducted as part of the drug management system for 2011 and first quarter of 2012.

The NTP prepared a module for drug management to be included in CMAMs SOP training. The training commenced at central level with three regional trainings to follow in APA2. A brochure for this training will be developed.

The project through MSH will also support NTP in APA2 in following up on all shipments scheduled for 2012 and start preparing documentation to receive drugs from GF for 2013. Also support will be provided for pediatric drugs through coordination with Global Fund to receive drugs that were supposed to arrive in quarter one.

Challenges and next steps

The main challenges identified include the low NTP capacity in drug management as there is only one trained pharmacist at national level, the unavailability of standard training materials and lack of funding to support commodity management trainings. In addition, there are no clear guidelines for TB drug management, the warehousing capacity is concentrated in the southern region of the country (Maputo city) and there is no reliable data on commodity availability at national level.

In terms of next steps, the team proposes to carry out a baseline assessment of TB commodity management and to assist the MoH in developing TB drug management guidelines. The NTP should be provided with both operational and technical support to ensure that data on commodity management from districts, provinces and regions is complete and timely. To achieve this, the project will seek collaboration with other partners, (Global Fund and PEPFAR-funded partners) to improve MoH capacity to collect, report, analyze and use data to inform decision-making.

Section B: Malaria

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1
1.1	Malaria case management at health facilities improved	% of Malaria cases managed according to National guidelines	Numerator: Number of Malaria cases managed according National guidelines Denominator: Total number of Malaria cases notified at the health facility	59 (HFS 2006)	100	NA*
1.2	Malaria diagnosis and treatment expanded to community level	% of Malaria cases diagnosed through Rapid Diagnostic Tests by community health workers	Numerator: Number of Malaria cases diagnosed through Rapid Diagnostic Tests by community health workers Denominator: Total number of people with symptoms of fever	0	30	NA*
1.3	Malaria diagnosis and treatment expanded to community level	% of Malaria cases treated by community health workers	Numerator: Number of Malaria cases treated by community health workers Denominator: Total number of Malaria cases diagnosed through Rapid Diagnostic Tests by community health workers		10	NA†
1.4	Malaria data management system strengthened	% of health facilities reporting correctly and timely Malaria cases	Numerator: Number of health facilities that reported Malaria cases correctly and on time Denominator: Total number of health facilities in the district	90	100	NA§

*This indicator is linked with the training of clinical staff which was supposed to be carried out by the Ministry of Health. However, due to financial constraints this training did not take place. It has been included in APA2

† This indicator is linked with the training of community health workers, which in turn is linked with the training of clinicians. It will take place in APA2

§ M&E activities were not implemented for the reasons described below. Reporting on this indicator can only start on year 2.

Key achievements

Malaria activities implemented were concentrated in three areas: 1) provision of technical and logistic support to an antimalarial drug efficacy study, 2) increasing the capacity in malaria microscopy by training laboratory technicians and 3) strengthening the MoH M&E system.

Monitoring antimalarial drug efficacy

Early diagnosis and treatment is crucial for malaria control. Effective treatment depends on the availability of adequate drugs and thus regular monitoring of drug efficacy represents an important tool for the provision of adequate evidence based treatment policy formulation. Since its introduction in 2005, no studies have been carried out to test the therapeutic efficacy of the Artemeter-Lumefantrine combination in the country.

In this context, the project supported an anti-malarial drug efficacy monitoring study, carried out with support from the Manhiça Health Investigating Centre. The study was aimed to monitor the therapeutic efficacy of Artemether-Lumefantrine and Artesunate-Amodiaquine combinations in five sentinel sites in the three regions of the country. The study included both arms and data collection was completed for both arms with 436 children who were recruited for arm one, 364 successfully completing the study and for arm two, out of the 261 children recruited, 242 successfully completed the study. Results are being analyzed and will be shared with the NMCP in May 2012, with a manuscript to follow for peer reviewed publication. Study results will also be included in the future TB CARE I report.

Increasing capacity in malaria diagnosis

The TB CARE I under the malaria initiative successfully trained 1,137 technicians in laboratory cascade training. The training was the first of that magnitude as 94.7 percent of all existing laboratory staff in the country were trained. Of the trained, 65 (23 females and 42 males) were first trained as trainers by a team from CDC and in turn they trained 1,072 (270 females and 802 males) technicians in all 11 provinces of the country. The training was a massive event and to mark its end, a ceremony was organized in Lichinga, Niassa where the last group was being trained. The ceremony was attended by USAID, Central MoH, the provincial Governor and the Government Permanent Secretary.

As a follow up to the cascade training, the malaria component will support training of clinicians in Malaria case management at provincial level. The objective of the training is to increase clinical knowledge in the diagnosis and treatment of malaria. The first of these trainings has been conducted in Cabo Delgado province (Northern Region). A total of 400 clinicians (165 females and 235 males) from 15 districts of the province participated. Similar trainings will be conducted in 3 provinces and will be conducted with funds from APA2.

The National Malaria Reference laboratory renovated and equipped during the TB CAP implementation phase and under PMI funding was officially inaugurated on March 10, 2012. The ceremony counted with the presence of high profile figures among them, the Global USAID Assistant Administrator, the Mozambican Deputy Minister of Health, MoH Permanent Secretary, USAID local Mission Head and staff, TB CARE I Global Director, various partners and other US government departments.

An international consultant from CDC Atlanta was contracted to establish the malaria quality assurance system. The system will contribute to the improvement of malaria diagnosis in the country and is directly linked to the renovation of the national reference laboratory. The consultant was in country from February 15 to March 3, 2012, and a general assessment was completed to review existing system in order to elaborate an evidence based QA system guidelines. Draft guidelines have been completed and will be distributed for review by April 15, 2012. After the review, a final version will be submitted to the Minister of Health for approval.

Monitoring and evaluation

Three key National Malaria Control Program (NMCP) documents, namely the Malaria policy, Malaria Strategic Plan and Monitoring and Evaluation Plan were successfully drafted and finalized. The have been submitted for approvals by the Minister of Health. Printing, reproduction and dissemination will be carried out soon after.

The project supported the printing and distribution of 16.000 copies of the malaria guidelines and treatment algorithms and charts. The distribution was done through the NMCP.

Challenges and Next steps

Initially it was planned to include a component of quality assurance in the laboratory cascade training but this was not done as the consultant initially identified was not available to do the assignment. The plan will be to include this component during supervision visits.

In terms of the drug efficacy study, the major challenge was the choice of the right timing to implement the study. Experience attained previously has shown that it is very difficult to carry out the study during the rainy season, as the caregivers of the children are usually involved in agricultural activities, resulting in high loss- to- follow up. On the other hand, implementing the study during the dry season is problematic as there are fewer malaria cases and most of them do not present with high parasite density [which was one of the inclusion criteria]. These logistical constraints explain the long recruitment period observed in our study. To guide the implementation of future studies, a consensus meeting will be organized to discuss the correct timing of these studies.